

REPORT

OF THE

CANAL COMMISSIONERS

RELATIVE TO AMOUNT PAID FOR REPAIRS

UPON THE

PENNSYLVANIA CANAL

AND

RAIL ROAD.

READ IN THE HOUSE OF REPRESENTATIVES,
MARCH 6, 1832.

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REPORT

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JOHN LAPORTE, Esq.

Speaker of the House of Representatives.

SIR:—In compliance with the resolution of the House of Representatives of the 13th February last, instructing the board of canal commissioners “to report to the House with as little delay as may be, a statement of the amount of money expended in repairs on the different lines of the state canal and rail-road since the commencement of the present system of internal improvement, setting forth distinctly the sums thus expended on each division, the nature of the repairs, the number of times that repairs have been made on the same works, if more than once, the years in which the repairs were made, the sums, if any, yet due for repairs already made or begun, together with any other information that in their opinion may throw light on this subject; also, an estimate as near as can be made of the sum that will be necessary for repairs during the coming year,” the following report is respectfully submitted:

It exhibits the actual payments made upon the several divisions of the canal and rail-road for repairs. And may be proper to state that in the annual report of the board of the 15th December last, the statement of the sums expended for repairs during the year includes the amount of repairs made and consequently in some instances exceeds the amount paid.

The amount now due for repairs made is \$58,391 45. This sum, together with the sums necessary to repair the injuries which have been and may be sustained during the season by freshets, and to make the ordinary repairs during the coming year, require in the opinion of the board, that the appropriation to this object should not be limited to less than \$400,000 00. If this sum should exceed the necessary expenditures no more will be borrowed than may be required. The board will however here repeat a remark made in their annual report, that “while they are not disposed to

doubt the wisdom of making specific appropriations for the construction of the several lines of canal and rail-road, yet they would respectfully suggest the propriety of making a general provision for repairs that may become necessary. A limited appropriation may often not be adequate to meet extraordinary exigencies, and for want of power in the fiscal officers of the government to grant relief, may be attended with disastrous consequences."

Prior to the appointment of supervisors, under the act of 6th April, 1830, the repairs made were paid by the acting commissioners and superintendents upon the several lines and the items were settled with the accountant department in the accounts for construction. The amount thus paid was annually reported to the board and the legislature, but the nature of the repairs made was not stated.

The supervisors are appointed by the board, but they settle their accounts with the Auditor General, under the provisions of the act authorising their appointment. The mode of keeping their accounts is directed by that officer, and their accounts in detail are filed in his office.

Under these circumstances, the canal commissioners are not enabled to make a detailed statement of the nature of the repairs, they will however proceed, so far as it is in their power, to furnish the information required by the resolution.

The sums expended upon the Western division prior to the year 1830, to wit: in 1828 the sum of \$5,667 59, and in 1829 the sum of \$32,179 69 $\frac{3}{4}$ appear to have been applied to the repair of sections, aqueducts and dams. On the 21st of July, 1830, the board, after having viewed the division, were convinced that immediate and extensive repairs were necessary between Blairsville and Pittsburg; they therefore directed the supervisors to draw the water from the canal on the 16th of August, and take immediate measures to make such repairs of the canal, locks, culverts, aqueducts, &c. as should be designated by the engineer, and deemed by him necessary to the security and complete navigation of the line. The principal part of the sum expended during the year was applied to the repairs thus ordered to be made, and amounted to \$51,836 79 $\frac{1}{2}$.

The sum expended during the last year and up to the 9th February of this year amounted to \$90,105 42, and was principally appropriated to repairing the injuries occasioned by the great flood of July last, to wit: the building of the Leechburg dam and guard lock, the repair of the Tub Mill aqueduct, the rebuilding the Stoney run aqueduct, and the repairing and rebuilding of towing path bridges, walls and embankment.

The residue was applied to the ordinary repairs of the division. The whole amount paid for repairs upon this division is \$179,789 50, and the amount due for repairs made is \$19,472 98 $\frac{1}{2}$ by the supervisors now in office. But a late supervisor having resigned about the time of completing the Leechburg dam, and after the funds for repairs were exhausted, his accounts have not therefore been settled, the advances he may have made (and which will be

a charge on the commonwealth) are not included in the above sum.

The expenditures of 1829, upon the Juniata division for repairs, amounted to \$8,126 51, and was applied to the ordinary repairs of new work upon the Lewistown line.

In 1830 it became necessary to repair the dam at North's island, a countre dam was constructed below the western wing, and an apron added to the eastern wing. The river lock at the dam proved defective, and a new one was constructed. The abutments of the dam at the head of the long narrows had given way and the river lock at the dam was materially injured, and the pier head and embankment between the lock and the dam, were wholly destroyed by the ice freshet, all these were repaired, as also a number of breeches in the canal, defective culverts, aqueducts and other incidental work. The amount expended for repairs upon this division in the year 1830 amounted to \$76,502 31½

During the last year the water was admitted into the Huntingdon line, which being new required the expenditure of a considerable sum to put it in navigable order.

The expenditures upon the division in addition, consisted of the repairing of a large culvert near Waynesburg, which had failed. The work necessary to the protection of one of the abutments of the dam in the long narrows; the repairing and raising the embankment of the canal in the long narrows, the construction of waste wiers around the locks, and for the safety of the levels, the raising the eastern wing of the dam at North's Island, which had sunk, being undermined by the overfall of water; constructing a pier at the pool of this dam for the support of the rope used for passing boats across the river, and generally of repairing breaches and stopping leaks in the canal. The amount paid for repairs upon this division in the last year and up to the 9th of February, 1832, is \$63,347 95, and the amount due for repairs made is \$6,061 61.

The whole amount paid for repairs upon this division is \$147,976 77½

The expenditures upon the Eastern division in 1829 amounted to \$15,810 93½ and consisted of repairs of aqueducts and culverts and gravelling the bottom of the canals along the Red Hill, and the Kitteskinny mountain, and repairing the dam at Duncans island which at that time was entirely composed of stone promiscuously thrown together, and which had been lowered by the operation of the water and ice.

In 1830, the expenditures amounted to \$39,904 43. In this year a new crib dam, abutments and guard wall were constructed across the river Susquehanna, at Duncans Island, in the room of the stone dam above alluded to. In the month of June of this year, the duties of the supervisor upon this division was extended to Montgomery's lock, upon the Susquehanna division, consequently the expenses of the Supervisor embrace the repairs from Middletown to that point, a distance of about 33 miles. On the Susquehanna part of this supervisorship, there were several failures of

culverts, some of which were occasioned by the water in the canal, and others by the floods in the mountain streams.

In 1831, the expenditures amounted to \$11,709 49½. The repairs were ordinary, consisting of locks and culverts, and repairing two breaches in the canal, also disposing of sand which from the floods of the river, accumulated in the basin constructed to facilitate the entrance of boats, from the river into the canal at Duncan's island, and generally in strengthening and improving the condition of the canal.

There is nothing due for repairs made upon this division.

The whole amount paid is \$67,424 86.

The amount paid for repairs upon the Delaware division prior to 1831, is \$25,297 88, and include the addition of four feet in height to upwards of a mile of the towing path bank below Well's falls, to secure the canal against high water in the river; conducting Warner's mill race under the canal; in excavating sundry places left for passages; giving additional securities to culverts, repairing banks, digging drains, ditches, sluices, &c.

In 1831, the amount paid for repairs is \$85,890 28.

The principal part of this sum, was expended above New Hope, and was applied to the repairing of extensive breaches, which occurred upon attempting to introduce the water to the construction of feeders and a dam across Tohickon creek, and at Well's falls, to the expense of changing the materials of which the embankment was composed along the wall sections, and generally to making the thorough and extensive repairs, which the defects in the original construction of this part of the division rendered necessary.

The amount due upon this division is \$16,046 12¾.

The whole amount paid is \$111,188 16.

The sum expended for repairs upon the Susquehanna division, prior to 1830, appears to be \$320 77, and was applied to ordinary repairs. There was also paid for rebuilding the Shamokin dam, and repairing the schute \$31,345 73.

The repairs of 1830 amounted to \$6,379 13 and consisted principally of work at the Shamokin dam and schute, the latter was changed to a sluice, and the former was strengthened by increasing the backing.

In 1831, there was paid for repairs the sum of \$16,322 16. The principal part of which was applied to rebuilding 220 feet of the Shamokin dam, which had been carried away by the flood to the extent of the crib walls of the sluice, to repairing the eastern abutment, to increasing the backing of the dam, and to the construction of an apron.

The amount due upon this division is \$11,000 00.

The whole amount paid, exclusive of the amount paid for repairs by the supervisor upon the Eastern division, is \$54,367 79.

There was paid for repairs upon the North Branch division in 1830, the sum of \$6,330 18½, and was applied to the ordinary repairs of new work.

The amount paid for repairs upon this division in 1831, and up to the 9th of February, 1832, is \$60,344 38. The principal part of this sum was expended in remedying the defects in the original construction of the canal, particularly the wall sections near Berwick and Catawissa. Upon introducing the water these defects were discovered, and throughout the whole line many and effectual repairs were made. In many sections composed of coarse gravel, the water escaped without producing breaches in the canal, these also required extensive repairs. The chute of the Nanticoke dam has been changed to a sluice, and extended upwards of 300 feet, and the western abutment, which had failed, has been repaired. A number of the locks and embankment at aqueducts have also been repaired.

The amount due for repairs is

\$1,447 11

The whole amount paid is

66,674 56½

The amount paid for repairs upon the West Branch division in 1830 was \$1,436 65½, and was applied to the removal of slips of the embankment above Milton, and to the repairing of two culverts, and ordinary repairs.

The amount paid for repairs in 1831, and up to the 9th of February, 1832, is \$27,429 92. This sum was applied, exclusive of the ordinary repairs, to the repairs of the Muncy dam, which were extensive, owing to a breach and to the sinking of the dam, the foundation being excavated by the overfall of water, to removing a gravel bar from below the chute of the dam, to repairing culverts, wall, locks aqueducts, and waste wiers, and to constructing waste wiers round locks and for the safety of levels.

The amount due for repairs made is

\$4,303 62

The whole amount paid is

28,866 57½

There was paid in 1830, for repairs upon the French creek feeder, the sum of \$15,802 70. This sum was applied to repairing breaches on the east side of French creek, and an extensive breach on the west side in the embankment near Watson's run aqueduct, to puddling culverts, removing deposits in the canal, occasioned by washes from the upper banks, and to repairs generally upon the whole line.

By the report of the superintendent upon the French creek feeder, made to the board in November last, it appeared that there had been paid in 1831 for repairs of the French creek feeder the sum of \$4,399 85. By a subsequent report of the superintendent it appears that \$4,324 94 of that sum had been paid for finishing the French creek aqueduct. Leaving the sum of \$74 91 paid for repairing the feeder in 1831.

There is nothing due for repairs made upon the feeder.

The whole amount paid is

\$15,877 61

There was paid for repairs upon the Columbia and

Philadelphia rail-road in the year 1830, the sum of \$2,204 64

do do 1831, do 3,685 41

Whole amount paid,

\$5,890 05

This sum was applied to repairing embankments on finished contracts, which were washed by heavy falls of rain, and to repairing drains constructed for the passage of small streams under the road, &c.

There are but few cases within the knowledge of the board, where the same works have been repaired more than once, and these are principally confined to dams, aqueducts, locks and culverts. The frequent failure of culverts was in part caused by a mistaken notion of engineers in preferring clay to gravel for puddling. This error has been corrected, and the repairs of culverts are now permanent. Annual repairs of dams upon large streams, of aqueducts and fixtures to locks will generally be required to a greater or less degree.

The board in conclusion will state, that a large proportion of the sums expended being for necessary new work, ought more properly to have been placed to the cost of construction, but having been disbursed by the supervisors, the accounting officers charged them to account of repairs.

It is proper to add that this report has been unavoidably delayed by the necessary absence of the canal commissioners from the seat of government. All which is respectfully submitted, by order of the board.

JAMES CLARKE, President.

March 5th, 1832.